

CLAIMS

1-29. (Cancelled)

30. (CURRENTLY AMENDED) A method for treating secondary progressive multiple sclerosis in a human in need of treatment for secondary progressive multiple sclerosis, comprising the step of administering attenuated activated myelin specific T-cells ~~PBMCs~~ to the human, wherein 40×10^6 activated myelin specific T-cells ~~attenuated PBMCs~~ are injected subcutaneously at intervals of either 3 months or 6 weeks for 3 months followed by 3 month intervals, wherein said attenuated activated myelin specific T-cells ~~PBMCs~~ are prepared by a second method comprising the steps of:

- a) obtaining peripheral blood mononuclear cells (PBMCs) from a human;
- b) culturing said PBMCs in serum free media supplemented with gentamicin; and stimulating said PBMCs in the presence of whole bovine myelin proteins;
- c) expanding said PBMCs using recombinant ~~human IL-2~~ human IL-2 at a concentration of 50 U/ml;
- d) restimulating after 10-14 days using autologous irradiated PBMCs as antigen presenting cells and bovine myelin proteins;
- e) repeating steps c and d weekly until selecting a polyclonal subset of PBMCs wherein said polyclonal subset of PBMCs are reactive to at least two different myelin proteins as detected in a proliferation assay and the response to myelin antigens exceeds response to control antigens by threefold; and
- f) separating activated myelin specific T-cells from APCs using Ficol^l™ gradient separation, washing said activated myelin specific T-cells in sterile ~~combining said polyclonal subset of PBMCs with~~ phosphate buffered saline (PBS), and irradiating said activated myelin specific T-cells for attenuation ($12000 \text{ rads Cs}^{137}$); thereby producing the attenuated activated myelin specific T-cells ~~PBMCs~~ for administering to the human.